



PTO/SB/08a (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
to a collection of information unless it contains a valid OMB control number.

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 2 of 3

Complete if Known	
Application Number	10/634,177
Filing Date	August 5, 2003
First Named Inventor	Michael William Willson
Art Unit	1625
Examiner Name	Evelyn Mei Huang
Attorney Docket Number	PC 25272A

U. S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ , Number ⁴ , Kind Code ⁵ (if known)				
JK		WO 02/34726 A2/A3	05/02/2002	Noe, et al.		
JK		WO 02/34753 A2/A3	05/02/2002	Bronk, et al.		

Examiner Signature	S. Huang	Date Considered	7/16/04
-----------------------	----------	--------------------	---------

***EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. 6 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



PTO/SB/08a (08-03)

Approved for use through 07/31/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet 1 of 4

Complete if Known	
Application Number	10/634,177
Filing Date	August 5, 2003
First Named Inventor	Michael William Wilson
Art Unit	1625
Examiner Name	Evelyn Mei Huang
Attorney Docket Number	PC 25272A

U. S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Country Code ³ Number ⁴ Kind Code ⁵ (if known)			
B/R		EP 1 138 680 A1	10/04/2001	Noe	
		EP 0 935 963 A2/A3	08/18/1999	McClure, et al.	
		WO 00/09485 A1	02/24/2000	McClure, et al.	
		WO 01/12611 A1	02/22/2001	Blagg	
Z/H		WO 01/63244 A1	08/30/2001	Chen, et al.	

Examiner Signature		Date Considered	7/1/04
--------------------	---	-----------------	--------

***EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 1 Applicant's unique citation designation number (optional). 2 See Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. 3 Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). 4 For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. 5 Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. 6 Applicant is to place a check mark here if English language Translation attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



PTO/SB/08b (08-03)

Approved for use through 06/30/2006. OMB 0651-0031

U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Sheet

3

of

4

Complete If Known

Application Number	10/634,177
Filing Date	August 5, 2003
First Named Inventor	Michael William Wilson
Art Unit	1625
Examiner Name	Evelyn Mei Huang

Attorney Docket Number

PC 25272A

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
<i>JW</i>		BILLINGHURST, et al., Comparison of the Degradation of Type II Collagen and Proteoglycan in Nasal and Articular Cartilages Induced by Interleukin-1 and the Selective Inhibition of Type II Collagen Cleavage by Collagenase, Arthritis & Rheumatism, 2000; 43(3): 664-672	
		BILLINGHURST, et al., Enhanced Cleavage of Type II Collagen by Collagenases in Osteoarthritic Articular Cartilage, J. Clin Invest., 1997; 99(7): 1534-1545	
		CHEN, et al., Structure-Based Design of a Novel, Potent, and selective Inhibitor for MMP-13 Utilizing NMR Spectroscopy and Computer-Aided Molecular Design, J. Am. Chem. Soc., 2000; 122: 9648-9654	
		DAHLBERG, et al., Selective Enhancement of Collagenase-mediated Cleavage of Resident Type II Collagen in Cultured Osteoarthritic Cartilage and Arrest with a Synthetic Inhibitor that Spares Collagenase 1 (Matrix Metalloproteinase2), Arthritis & Rheumatism, 2000; 43(3): 673-682	
		HARRIS, The Oxidation of N-(2-pYRIDYL) Thioureas. The Synthesis of [1.2.4] Thia diazolo [2,3-a] Pyridinium Salts, Aust. J. Chem., 1972;25(5): 993-1001	
		HIROTA, et al., Novel Synthesis of Pyrido[3,4-d]pyrimidines, Pyrido[2,3-d]pyrimidines, and Quinazolines via Palladium-catalyzed Oxidative Coupling, Heterocycles, 1994; 37(1): 563-570	
		LOVEJOY, et al., Crystal structures of MMP-1 AND -13 reveal the structural basis for selectivity of collagenase inhibitors, Nature Structural Biology, 1999; 6(3): 217-221	
		MITCHELL, et al., Cloning, Expression, and Type II Collagenolytic Activity of Matrix Metalloproteinase-13 from Human Osteoarthritic Cartilage, J. Clin. Invest., 1996; 97: 761-768	
		MOY, et al., High-resolution Solution Structure of the Catalytic Fragment of Human Collagenase-3 (MMP-3) Complexed with a Hydroxamic Acid Inhibitor, J. Mol. Biol., 2000; 302: 671-689	
<i>JW</i>		NEUHOLD, et al., Postnatal expression in hyaline cartilage of constitutively active human collagenase-3 (MMP-13) induces osteoarthritis in mice, J. Clin. Invest., 2001; 107(1): 35-44	

Examiner Signature

E. Huang

Date Considered

2/11/04

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹ Applicant's unique citation designation number (optional). ² Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



PTO/SB/08b (08-03)

Approved for use through 06/30/2006. OMB 0651-0031

and Trademark Office; U.S. DEPARTMENT OF COMMERCE
1100 L Street, N.W., Washington, D.C. 20540

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449B/PTO				Complete If Known	
INFORMATION DISCLOSURE STATEMENT BY APPLICANT				<i>Application Number</i>	10/634,177
				<i>Filing Date</i>	August 5, 2003
				<i>First Named Inventor</i>	Michael William Wilson
				<i>Art Unit</i>	1625
				<i>Examiner Name</i>	Evelyn Mei Huang
Sheet	4	of	4	<i>Attorney Docket Number</i>	PC 25272A
(Use as many sheets as necessary)					

NON PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
<i>SAS</i>		Office Action mailed June 16, 2003 in U.S.S.N. 10/264,764	
<i>SAS</i>		Search Report from PCT/IB03/03478	

Examiner Signature	S. Huang	Date Considered	7/1/04
-----------------------	----------	--------------------	--------

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.